
REMARKS**Status of the Application**

Claims 1, 2, 5, 6, 10, 11, 13, 14, 17, 21, 24, and 28 were previously pending. Claims 2 and 5 were objected to for informalities. Claims 1, 2, 5, 6, 10, 11, 13, 14, 17, 21, 24, and 28 were rejected both under 35 USC 112, first paragraph and second paragraph. Claim 1 was rejected under 35 USC 102(b) as being anticipated by Gorman et al. (US 4,117,288). Claims 1, 2, 5, 6, 10, 11, 13, 21, 24, and 28 were rejected under 35 USC 102(b) as being anticipated by Komuro et al. (US 5,557,083). Claims 14 and 17 were rejected under 35 USC 103(a) as being unpatentable over Komuro et al. (US 5,557,083). Claims 1, 2, 5, 6, 10, 11, 13, 14, 17, 21, 24, and 28 were also provisionally rejected under the judicially created doctrine of obviousness-type double patenting.

Applicant has amended claims 1, 2, 6, 10, 11, 13, 21, 24, and 28, and added new claims 30-38. No new matter adds through the amendments. For the reasons discussed below, withdrawal of the rejections is requested.

Drawings

The drawings were objected to for not showing the feature that "the conductive component passes through the center of the container and substantially equally divides the container from the top to the bottom".

Applicant has amended claim 1 to recite:

"the conductive component passes through a center of the container and divides the container into several parts along a direction from the top to the bottom". The feature is shown in Figs 9 and 10, where conductive component 82 passes the center (located on a central axis) of container 8 and divides container 8 into three parts along the direction from the top to the bottom of container 8. Fig. 9 shows a cross sectional view perpendicular to the central axis of the container 8, while Fig. 10 shows a cross sectional view parallel with the central axis of container 8.

For reasons discussed above, withdrawal of the objection is requested.

Claim Objections

Claims 2 and 5 were objected to for informalities. In the amended claims 2 and 5, the informalities have been corrected. Withdrawal of the objection is requested.

Claim Rejections- 35 U.S.C. 112, First Paragraph

Claims 1, 2, 5, 6, 10, 11, 13, 14, 17, 21, 24, and 28 were rejected under 35 USC 112, first paragraph. More specifically, the Office Action alleged that “[T]he support for “the conductive component passes through the center of the container and substantially equally divides the container from the top to the bottom” is not found in the specification.”

Applicant respectfully traverses the rejection for reasons given below.

As shown in Figs. 9-11 and described in the second paragraph on page 15, the conductive component 82 passes through the center of the container 80 or, more clearly, passes through the central axis of the container 80. And the conductive component 82 divides the container 80 into three parts along the central axis from the top to the bottom.

Applicant has amended the claims to more clearly define the invention. For example, the amended claim 1 recites:

“the conductive component passes through a center of the container and divides the container into several parts along a direction from the top to the bottom”.

For reasons discussed above, such feature is fully supported by the specification and the drawings.

Withdrawal of the rejection is requested.

Claim Rejections- 35 U.S.C. 112, Second Paragraph

Claims 1, 2, 5, 6, 10, 11, 13, 14, 17, 21, 24, and 28 were rejected under 35 USC 112, second paragraph.

Applicant has carefully reviewed and amended the claims. It is believed the amendments made to the claims overcome the rejections.

Withdrawal of the rejection is requested.

Claim Rejections- 35 U.S.C. 102(b)

Claim 1 was rejected under 35 USC 102(b) as being anticipated by Gorman et al. (US 4,117,288).

Applicant respectfully traverses the rejection for reasons discussed below.

Claim 1, as amended, recites:

A multipolar integrated contact, comprising:
an arc proof component;
a conductive component;
a magnetic field generating component; and

a container having an open top, a bottom and a center, wherein the arc proof component, the conductive component and the magnetic field generating component are set in the container, *the conductive component passes through the center of the container and divides the container into several parts along a direction from the top to the bottom; the magnetic field generating component comprises separate portions isolated by the conductive component, each separate portion of the magnetic field generating component is combined with the conductive component and fills in one of the several parts within the container*, and the arc proof component is on top of the combination of the magnetic field generating component and the conductive component.

Gorman at least does not teach or suggest the above emphasized features of claim 1. More specifically, Gorman does not teach or suggest "the conductive component passes through a center of the container and divides the container into several parts along a direction from the top to the bottom; the magnetic field generating component comprises separate portions isolated by the conductive component, each separate portion of the magnetic field generating component fills in one of the several parts within the container".

Gorman teaches a vacuum type circuit interrupter with contacts including an integral axial magnetic field generating means. Gorman teaches an axial magnetic filed means 56 having tow coil pieces 58. Coil piece 58 has raised end connections 60 and 62 on each opposed side thereof. Col. 4, lines 55-62 and Figs. 3 and 4. Gorman also teaches annular conductive supports 66 and 68 located within the circle formed by coil pieces 58. However, Dorman fails to teach or suggest any conductive component that passes through the center of the cup-shaped base member 42 and divides it into several parts. He also fails to teach or suggest the coil pieces 58 are isolated by the conductive component, and each coil piece 58 fills in one of the divided parts of the container.

For at least the reasons discussed above, Gorman cannot anticipate claim 1. Withdrawal of the rejection is requested.

Claim Rejections- 35 U.S.C. 102(b)

Claims 1, 2, 5, 6, 10, 11, 13, 21, 24, and 28 were rejected under 35 USC 102(b) as being anticipated by Komuro et al. (US 5,557,083).

Applicant respectfully traverses the rejection for reasons discussed below.

Claim 1, as amended, recites:

A multipolar integrated contact, comprising:

an arc proof component;

a conductive component;

a magnetic field generating component; and

a container having an open top, a bottom and a center, wherein the arc proof component, the conductive component and the magnetic field generating component are set in the container, the conductive component passes through the center of the container and divides the container into several parts along a direction from the top to the bottom; the magnetic field generating component comprises separate portions isolated by the conductive component, each separate portion of the magnetic field generating component is combined with the conductive component and fills in one of the several parts within the container, and the arc proof component is on top of the combination of the magnetic field generating component and the conductive component.

Komuro at least does not teach or suggest the above emphasized features of claim 1. More specifically, Komuro does not teach a container for a single multipolar integrated contact. Claim 1 recites a multipolar integrated *contact* which comprises a container to contain an arc proof component, a conductive component, and a magnetic field generating component of the contact. As shown in Fig. 8, Komuro teaches an insulating cylinder 35. However, the insulating cylinder 35 is not for a single contact, but for a vacuum valve. The insulating cylinder 35 together with a pair of upper and lower plates 38a, 38b constitutes a vacuum vessel defining a vacuum chamber. Inside the vessel, two contacts 30a, 30b and two electroconductive rods 34a, 34b. Komuro also teaches a shield member 36 as magnetic cylinder disposed around both arc electrodes. Col. 11, line 66 – Col. 12, line 26. Clearly, Komuro does not teach or suggest a container for a single contact as in the present invention.

Furthermore, Komuro does not teach or suggest “the conductive component passes through a center of the container and divides the container into several parts along a direction from the top to the bottom; the magnetic field generating component comprises separate portions isolated by the conductive component, each separate portion of the magnetic field generating component fills in one of the several parts within the container” as recited in the amended claim

1. As shown in Figs. 8-10, Komuro teaches a reinforcing member 39 formed of pure iron or austenitic stainless steel which passes through the central axis, therefore the center, of the contact. Col. 12, lines 33-35. However, from the material (pure iron or austenitic stainless steel) of reinforcing member 39, it clearly is not a good conductor and is not used as a conductive component. Instead, it is used for reinforcement. Further, the reinforcing member 39 does not divide the container or contact into several parts and does not isolate the vertical magnetic field generating coil 33 into separate portions.

For at least the reason discussed above, Komuro cannot anticipate claim 1. For the same reasons, its dependent claims 2, 5, 6, 10, 11, 13, 21, 24, and 28 are not anticipated by Komuro. Applicant has further amended these dependent claims for clarity.

In addition, these dependent claims contain features that further distinguish over the cited prior art.

For example, the amended claim 6 recites "the conductive component and the magnetic field generating component are combined to form a cylindrical body conforming with the cylindrical inner sidewall of the container, wherein each separate portion of the magnetic field generating component comprises a plurality of cylindrical-shape layers with different diameters arranged substantially parallel with the cylindrical inner sidewall of the container". Komuro does not teach or suggest such features.

For reasons discussed above, withdrawal of the rejections is requested.

Claim Rejections- 35 U.S.C. 103(a)

Claims 14 and 17 were rejected under 35 USC 103(a) as being unpatentable over Komuro et al. (US 5,557,083).

For the reasons discussed above, claim 1 is believed patentable over Komuro. For at least the same reasons, its dependent claims 14 and 17 are also patentable over Komuro.

Claim Rejections- Double Patenting

Claims 1, 2, 5, 6, 10, 11, 13, 14, 17, 21, 24, and 28 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being obvious over claims 1, 2, 4, 7, 8, 12, 15, 19, 24, 29, 32, and 36 of copending application no. 10/648,727.

Applicant will file a terminal disclaimer to obviate the rejection when this application is otherwise in condition for allowance.

New Claims

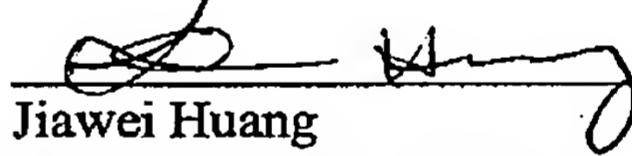
New claims 30-38 have been added. Claims 30-34 depend, directly or indirectly, from claim 1 and contain features that further distinguish over the cited prior art. New claims 35-37 are fully supported by the specification and the drawings, for example, Figs. 5, 7, 9, and 10. New claim 38 is fully supported by the specification and the drawings, for example, Figs. 5-7.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the remaining claims 1, 2, 5, 6, 10, 11, 13, 14, 17, 21, 24, 28, and 30-38 are now in condition for allowance. Allowance of this application is earnestly solicited.

Respectively submitted

Date: 8/16/2004


Jiawei Huang
Registration No. 43,330

J.C. Patents
4 Venture, Suite 250
Irvine, CA 92618
Tel.: (949) 660-0761